

SENYAVIN, S. A.

USSR.

V. Rates of hydrogenation of aromatic hydrocarbons. VII. Hydrogenation of benzene and its homologs in the presence of tungsten disulfide. A. V. Lopyov and S. A. Senyavin. *Sbornik Statei Obshchei Khim.* 2, 1000-1005, 1955. Cf. C.A. 49, 804a. Hydrogenation of C_6H_6 , $MePh$, $EtPh$, m -xylene, mesitylene, C_6HMe_3 , C_6Me_3 , and tetrahydronaphthalene was studied in the presence of WS_2 at 420° and 200 atm. H_2 ; the reaction rates were followed until some 60% completion of hydrogenation. Under these conditions if the rate of hydrogenation of C_6H_6 is taken as 1, the rates for the other hydrocarbons are $MePh$ 2.3, m -xylene 3.3, mesitylene 4.3, C_6HMe_3 6.3, C_6Me_3 1.6, $EtPh$ 1.4, tetrahydronaphthalene 2.5. For C_6H_6 the reaction is of 1.5-order. The temp. coeff. of the reaction for C_6H_6 , $MePh$, and $EtPh$ at 410-30° is 1.25-1.30, while the apparent activation energy is 31.2-25.4 kcal./mole. G. M. Koshlapoff.

SENYAVIN, S.A.

Rates of hydrogenation of aromatic hydrocarbons. VIII.
Hydrogenation of condensed aromatic hydrocarbons in the
presence of tungsten dihalides. A. V. Lomov and S. A.
Senyavin. *J. Gen. Chem. U.S.S.R.* 24, 1771-6 (1954).
(~~translation~~ See C.A. 49, 12410r. B. M. R.)

MA-241

Senyavin, S.A.

USSR/Chemistry - Hydrogenation processes

Card 1/1 Pub. 151 - 18/37

Authors : Lozovoy, A. V., and Senyavin, S. A.

Title : Rate of hydrogenation of aromatic hydrocarbons. Part 8.- Hydrogenation of condensed aromatic hydrocarbons in the presence of tungsten disulfide

Periodical : Zhur. ob. khim. 24/10, 1803-1809, Oct 1954

Abstract : The relative rates of hydrogenation of condensed aromatic hydrocarbons - naphthalene, anthracene, chrysene and their hydro-derivatives, was investigated in the presence of a WS_2 catalyst at 400° temperature and a pressure of 150 atm. The kinetics of hydrogenation of condensed aromatic hydrocarbons is analyzed. The results obtained are shown in tables. The effect of molecule complication on the rate of hydrogenation of condensed arom. hydrocarbons, in comparison to the rate of naphthalene and chrysene hydrogenation, is explained. Eight references: 6-USSR; 1-USA and 1-Italian (1928-1953). Tables.

Institution : Academy of Sciences USSR, Institute of Minerals

Submitted : May 13, 1954

SENYAVIN; S.A.

The relative activity of industrial catalysts for vapor-phase hydrogenation. A. V. Lozovoi, A. B. Vol'enshtein, and S. A. Senyavin. *Trudy Inst. Goryuch. Iskopaemnykh. Akad. Nauk S.S.S.R., Otdel. Tekh. Nauk* 6, 16-34 (1955).—Three fresh samples of the principal vapor-phase catalysts, WS_2 , $WS_2 + NiS + Al_2O_3$ (I), and $WS_2 +$ aluminosilicates (II) were tested for the hydrogenation of olefins and phenol in a continuous lab. installation at 50-200 atm., 350° , and a space velocity of 8-20. All the catalysts hydrogenated the olefins in cracked kerosine, naphthalene, and Tetralin and reduced Tetralin to Decalin and PhOH to C_6H_6 . The activity of the freshly prepd. catalysts can be arranged in the following descending order: I, WS_2 , II. The difference in activity is most pronounced in the case of double bonds which are difficult to hydrogenate. The difference in activity between I and WS_2 was smaller than that for II. The 3 catalysts were practically equiv. for olefin hydrogenation. The electron-microscopic investigation at a magnification of 14,000 showed that WS_2 consisted of single crystals and their agglomerations have a size of 300-20,000 Å., with little deformation of the crystallites which retain the correct hexagonal form; I formed a cloudlike mass of $\gamma-Al_2O_3$ with such fine crystals (50Å.) that they appeared amorphous. The WS_2 crystals appeared unbedded in that mass and NiS could not be seen. The higher activity of the complex catalyst is explained by the complete accessibility of the minute WS_2 crystals to the reacting substances, which readily penetrate the porous Al_2O_3 layer. The over-all hydrogenation activity of all the catalysts was unaffected by increasing the pressure from 50 to 110 atm. at 350° , and the freshly made catalysts differ quantitatively but not qualitatively in their hydrogenation activity.

W. M. Sternberg

AID P - 2262

Subject : USSR/Chemistry

Card 1/1 Pub. 152 - 7/19

Authors : Lozovoy, A. V, S. A. Senyavin and A. B. Vol'-Epshteyn

Title : Activity of certain hydrogenation catalysts

Periodical: Zhur. prikl. khim., 28, no.2, 175-184, 1955

Abstract : Experiments with unsaturated hydrocarbons, (naphthalene, benzene, and tetralin) in the presence of 18 hydrogenation catalysts at temperatures of 420-450°C and pressures of 180-220 atm. are described. The catalysts consisted of oxides and sulfides of metals of the groups 4,5,6, and 8 of the periodic system. Four tables, 2 diagrams, 12 references (6 Russian: 1937-51).

Institution: Institute of Mineral Fuels of the Academy of Sciences of the USSR

Submitted : Je 18, 1953

5.1190
5.3200

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 7, p 464 (USSR)

80317

SOV/81-59-7-24813

AUTHORS:

Lozovoy, A.V., Senyavin, S.A.

TITLE:

On the Relative Rates of Hydrogenation and Decomposition of Hydrocarbons Under the Conditions of Destructive Hydrogenation in the Presence of Sulfide Catalysts

PERIODICAL:

V sb.: Khim. pererabotka topliva. Moscow, AS USSR, 1957, pp 180 - 194

ABSTRACT:

Investigations of the relative rates of the hydrogenation of hydrocarbons with various types of double bonds (benzene ring (BR), condensed aromatic ring and isolated ethylene bond in naphthylenes) were carried out in an autoclave at 380 - 475°C, a pressure of 150 - 220 atm, in the presence of Mo and W sulfides. It was established that an increase in the methyl radicals in BR to five and the lengthening of the side chain to C₂ practically does not change the hydrogenation rate of BR in the presence of MoS₂. The appearance of a condensed naphthene cycle at BR (the formation of tetralin) increases

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... rapidly
... of the reaction of
... and 0.5, respectively. In an analogous

Card 2/

LOZOVY, A.V.; SENYAVIN, S.A.; SOVETOVA, L.S.

Transformations of some hydrocarbons during hydrogenation in
the presence of aluminosilicate catalysts. Trudy IGI 9:122-128
'59. (MIRA 13:1)

(Hydrocarbons) (Hydrogenation)

S/080/60/033/04/33/045

AUTHORS: Lozovoy, A.V., Senyavin, S.A., Sovetova, L.S.

TITLE: On the Transformations of Benzene, Cyclohexane and Isooctane in the Case of Destructive Hydrogenation in the Presence of a Catalyst With Alumo-silicate Base

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 4, pp 947 - 953

TEXT: This is an investigation of the chemism of destructive hydrogenation of benzene, cyclohexane and isooctance in the presence of a W-Cr-Zn-S-F-alumosilicate catalyst at 510°C and a pressure of 300 atm. It has been established that the transformation of benzene takes place by hydrogenation (about 37% of benzene reacted) with subsequent isomerization of cyclohexane to methylcyclopentane, the destruction of cyclohexane, methylcyclopentane and other saturated hydrocarbons with a number of carbon atoms in the molecule below six, and also in a small degree by alkylation of benzene by methyl and ethyl radicals. It was found that the destruction hydrogenation of cyclohexane (depth of transformation 48.4%) includes its isomerization into methylcyclopentane, the destruction of naphthene rings with the formation of paraffin C₁-C₆ hydrocarbons (in which case among the C₄-C₆ hydrocarbons the isoparaffin hydrocarbons prevail) and a weakly

Card 1/2

s/080/60/033/04/33/045

On the Transformations of Benzene, Cyclohexane and Isooctane in the Case of Destructive Hydrogenation in the Presence of a Catalyst With Alumosilicate Base

developed reaction of cyclohexane alkylation. The destructive hydrogenation of isooctane proceeds very intensively (73% transformed), the main product being isobutane (86 weight % of the isooctane transformed; 8.4% are propane and 4.4% n-butane). Under the conditions of destructive hydrogenation one of the C-C bonds of a quaternary carbon atom of isooctane is very weak. The hydrocarbons investigated are arranged in the following series according to the transformation rate: isooctane > cyclohexane > benzene. Under the conditions of high-temperature destructive hydrogenation at a pressure of 300 atm the catalyst investigated activates the reactions of destructive hydrogenation of isoparaffin hydrocarbons, the isomerization of the six-membered naphthene ring to a five-membered one and the decomposition of the naphthene rings. The reaction of hydrogenation of a benzene ring is activated moderately, the alkylation of benzene and cyclohexane weakly. The reactions of dehydrogenation, cyclization and aromatization of naphthenes and isonaphthenes are very weakly developed. There are: 3 tables and 10 references, 8 of which are Soviet and 2 English

ASSOCIATION: Institut goryuchikh iskopayemykh AN SSSR (Institute of Mineral Fuels of the AS USSR)

SUBMITTED: September 11, 1959
Card 2/2

LOZOVY, A.V.; SENYAVIN, S.A.; SOVETOVA, L.S.

Conversions of benzene, cyclohexane, and isooctane in the course of destructive hydrogenation in the presence of an aluminosilicate catalyst. Zhur.prikl.khim. 33 no.4:947-953 Ap '60.
(MIRA 13:9)

1. Institut goryuchikh iskopayemykh AN SSSR.
(Benzene) (Cyclohexane) (Hydrogenation) (Heptane)

S/080/61/034/006/003/020
D247/D305

AUTHORS: Lozovoy, A.V., Muselevich, D.L., Ravikovich, T.M.,
Senyavin, S.A., and Cherkasova, V.F.

TITLE: Hydrogen catalysts based on an alum in an osilicate
base

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 6, 1961,
1200 - 1208

TEXT: In the present work an attempt has been made to produce a catalyst for the hydrogenation of coals and tars in the production of higher aromatic benzenes. The investigations were concerned mainly with finding a suitable natural alum in osilicate, synthesizing a catalyst of a complex character capable of converting in a single stage, in the vapor phase, unrefined, high-boiling and coal distillates containing oxygen, nitrogen and sulphur compounds into higher aromatic hydrocarbons boiling within 170-200°C, and investigating the stability of such catalysts on prolonged working

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Hydrogen catalysts based on ...

S/080/61/034/006/003/020
D247/D305

under a pressure of 300 atm. From many natural alum in osilicates tested "askanite", H_2SO_4 - activated Askansk clay, was found to provide a base for the most active catalyst. The normal procedure of preparing the catalysts involved intimately mixing the askanite, water, CrO_3 and aq. HF, followed by the addition of tungstic acid, zinc oxide, sulphur and compounds of molybdenum, vanadium and nickel as required. After drying, the mass was crushed, sieved and formed into tablets. Activation was carried out by heating to $450^{\circ}C$ in a stream of hydrogen or hydrogen/hydrogen sulphide. Activity of the prepared catalyst was then determined from the yields and compositions of the hydrogenation products. The results obtained, using five of the most interesting alum in osilicate catalysts, are given in Table 1, which also includes a technical alum in o-molybdenum catalyst.

Table 1. Composition and comparative activity of aluminosilicate catalysts under autoclave conditions ($510^{\circ}C$, initial hydrogen pressure 130 atm, time = 20 min. Quantity of catalyst = 10 %).

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Hydrogen catalysts based on ...

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Table 1. (cont'd) Состав и сравнительная активность алюмосиликатных катализаторов в условиях автоклавных опытов (510°, начальное давление водорода 130 ат, длительность 20 минут)
Количество катализатора 10%

3 № катализатора	1 Для приготовления катализатора взято (вес. %)									2 Выход (вес. % от сырья)		5 Количество алюминия, титана, железа и никеля в продукте (вес. %)
	4 асканита	5 40%-й плавиково-й кислоты	6 S	7 W	8 Mo	9 V	10 Zn	11 Ni	12 Cr	13 продукта гидрогенизации с концентрированной азотной кислотой	14 газа + воды	
32	70.6	10.9	10.9	—	—	—	—	7.6	—	29.9	33.7	71.1
11	68.0	10.5	6.1	—	—	—	5.4	7.3	2.7	27.5	35.1	77.5
36	71.7	10.8	6.0	—	—	3.0	5.7	—	2.8	28.6	28.6	69.2
26	72.0	11.0	6.1	—	2.2	—	5.8	—	2.9	33.4	31.3	77.5
345	71.4	10.7	6.0	3.3	—	—	5.8	—	2.8	43.1	27.7	64.1
7360	—	—	—	—	—	—	—	—	—	36.1	36.1	61.2

Legend: 1 - Catalyst prepared from (weight %); 2 - yield (weight % based on raw material); 3 - no. of catalyst; 4 - askonite; 5 - 40 % hydrofluoric acid; 6 - 12 - (as indicated); 13 - product of
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D247/D305

Hydrogen catalysts based on ...

hydrogenation boiling up to 175°C; 14 - gas + losses; 15 - quantity of aromatic hydrocarbons in the product of hydrogenation (weight %); 16 - *Catalyst composition: Al_2O_3 76.05 %; MoO_3 14.77 % (Mo 9.85 %); Fe_2O_3 0.59 % (Fe 0.41 %); H_2O bound + 8.59 %; time of experiment = 15 min.

Further experiments were conducted in a continuous flow apparatus at 480-520°C and 300 atm. over a period of 6-10 hrs. Under those conditions catalyst No. 345 was found to exhibit the highest activity. Investigations of activity and stability of the catalyst No. 345 were also conducted in a continuous hydrogenation plant at a temperature of 510°C and a pressure of 300 atm; over 97 hrs. runs. For velocities equal to 1, the average yield of the product of hydrogenation was 82 %, including 50 % of the fraction boiling up to 170°C and containing 53 % of aromatic hydrocarbons. After 97 hrs. of operation the catalyst was found to lose some of its activity, which could not be restored by enrichment with sulphur. It has been

Card 4/5

LOZOVY, A.V.; MUSELEVICH, D.L.; RAVIKOVICH, T.M.; SENYAVIN, S.A.; TITOVA, T.A.;
CHERKASOVA, V.F.; Primali uchastiye: DEMBOVSKAYA, Ye.A.;
ZAKHARENKO, V.A.; L'VOVA, L.N.; MARKINA, T.I.

Hydrogenation catalysts on an aluminosilicate base. Zhur.prikl.khim.
34 no.10:2295-2302 0 '61. (MIRA 14:11)
(Hydrogenation) (Catalysts)

S/846/62/017/000/002/002
E075/E135

AUTHORS: Lozovoy, A.V., Muselevich, D.L., Ravikovich, T.M.,
Senyavin, S.A., Titova, T.A., and Cherkasova, V.F.

TITLE: Silica-alumina based catalysts for high hydrogen
pressure hydrogenation

SOURCE: Akademiya nauk SSSR, Institut goryuchikh iskopayemykh.
Trudy. v.17. 1962. Khimicheskaya i termicheskaya
pererabotka topliva. 199-211.

TEXT: Silica-alumina catalysts activated with HF and
described previously (A.V. Lozovoy, D.L. Muselevich, T.M. Raviko-
vich, S.A. Senyavin and V.F. Cherkasova, Zh P Kh, 34, 1200 (1961))
have insufficient stability at 300 atm and 500-510 °C during
hydrogenation of coal tar oils. The authors therefore investigated
the activity and stability of the catalysts at 600 atm and
470-505 °C during hydrogenation of coal tar oils from which the
most valuable phenols and N-compounds were previously extracted.
The new catalysts were based on HF treated silica-alumina with the
addition of a few percent of oxides and sulphides of Cr, Zn, Fe,
Ni, and traces of W or Mo. The activity of the catalysts was

Card 1/2

LOZOVY, A. V.; MARKINA, T. I.; SENYAVIN, S. A.

Coke formation on an alumina-molybdenum oxide catalyst in the
course of high temperature hydrogenation. Trudy IGI 18:235-245
'62. (MIRA 15:10)

(Petroleum products) (Hydrogenation)
(Catalysts)

KHOKHLOV, A.S.; KLEYNER, Ye.M.; SENYAVINA, L.B.

Chemical studies on phenoxymethylpenicillin; production and studies on amines of phenoxymethylpenicillin. Antibiotiki 3 no.5:44-49 S-O '58. (MIRA 12:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(PENICILLIN, rel. cpds.
phenyl methyl penicillin, prod. & chem. of
amino deriv. (Rus))

AUTHORS: Senyavina, L. B., Bruns, B. P. SOV/75-13-5-21/24

TITLE: ~~Physico-Chemical Methods for the Determination of Antibiotics~~
(Fiziko-khimicheskiye metody opredeleniya antibiotikov)
Communication IV. Colorimetric Determination of Biomycin
(Sobshcheniye IV. Kolorimetricheskoye opredeleniye biomitsina)

PERIODICAL: Zhurnal analiticheskoy khimii, 1958, Vol 13, Nr 5, pp 613-616
(USSR)

ABSTRACT: The Soviet preparation "Biomycin" contains as active principle an antibiotic known abroad as aureomycin or chlorotetracyclin. Some methods for its quantitative determination are published (Refs 1-6). The most suitable and simplest for the use in works- and research laboratories is the colorimetric method which was first suggested by Levine (Ref 1). It is based on the transformation of aureomycin into anhydro-aureomycin on heating in hydrochloric acid solution. The anhydro-aureomycin is colored deep-yellow-orange. This color is measured colorimetrically (Ref 2). The paper by Levine does not state whether this method is also applicable to the determination of aureomycin in culture liquids and in the intermediate stages of its isolation under industrial conditions. This matter is dealt with in the present

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SOV/75-13-5-21/24
Physico-Chemical Methods for the Determination of Antibiotics. Communication
IV. Colorimetric Determination of Biomeycin

paper. All extinction evaluations have been carried out on a photoelectric colorimeter by Khil'ger. It was proved that after a treatment of 3 to 5 minutes of the solution in a boiling water bath maximal extinction is attained. The color of the solutions after cooling does not change within 5 hours, within 24 hours the extinction drops by 5% only. Because some compounds of aureomycin are only soluble in diluted hydrochloric acid, it is possible that in the standard solution the aureomycin is partly converted into anhydro-aureomycin. Thus, on the measuring of the test solution results too low are obtained. One must therefore operate with solutions of $\text{pH} < 1,9$. The obtained extinction of the anhydro-aureomycin (measured against a blank test containing aureomycin) is linearly proportional to the concentration of aureomycin in the initial solution, the concentration of aureomycin being $< 1200-1300 \mu\text{g/ml}$. The results of this colorimetric method are in good accordance with the results of the microbiological determination of aureomycin which takes more time. At concentrations of aureomycin $< 50 \mu\text{g/ml}$ the colorimetric method provides too high values. Deviations only occur in solutions with $\text{pH} \sim 2$. At a lower pH and in

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Physico-Chemical Methods for the Determination of Antibiotics. Communication
IV. Colorimetric Determination of Biomecin

SC7/15-13-1-21/24

Weakly alkaline solutions both determinations provide consistent results. The deviations in weakly acid solutions are probably due to the fact that in this range the aureomycin is transformed to epichlorotetracycline (Ref 8) which is biologically inactive but capable of forming the colored anhydrous form. It was found that the method by Levine is very specific and permits the determination of aureomycin not only in pure and trade-preparations but also in the intermediate stages of its isolation. The method is also applicable to the direct analysis of culture media if their content of aureomycin is not less than 50 μ /ml. The authors also elaborated a semi-quantitative visual colorimetric method for the determination of aureomycin. Here, solutions of potassium bichromate in various concentrations are used as comparison solutions. This method provides good estimation results and is precisely described in the paper. There are 4 tables and 8 references, 1 of which is Soviet.

ASSOCIATION:
Card 3/4

Vsesoyuznyy nauchno-issledovatel'skiy institut antiseptikov,
Moskva (All-Union Scientific Research Institute of Antiseptics,

ZASYPKINA, P.S.; SENYAVINA, L.B.; BRUNS, B.P.

Physical and chemical methods for determining antibiotics. Part 7:
Colorimetric method for determining oxytetracycline. Med. prom.
14 no. 10:31-34 0 '60. (MIRA 13:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(TERRAMYCIN) (COLORIMETRY)

SHEYNKER, Yu.N.; POSTOVSKIY, I.Ya.; BEDNYAGINA, N.P.; SENYAVINA, L.B.;
LIFATOVA, L.F.

Equilibrium between the tetrazole and azide forms in benzothiazole-tetrazole. Dokl. AN SSSR 141 no.6:1388-1390 D '61. (MIRA 14:12)

1. Ural'skiy politekhnicheskiy institut im. S.M.Kirova i Institut khimii prirodnikh soedineniy AN SSSR. Predstavleno akademikom M.I.Kabachnikom.

(Benzothiazole) (Tetrazole) (Azides)

SENYAVINA, L.B.; OVCHINNIKOV, Yu.A.; SHEYNKER, Yu.N.

Infrared spectra of substituted γ -lactones of 2-hydroxycyclohexylacetic acids. Izv. AN SSSR. Otd.khim.nauk no.5:777-784 My '62. (MIRA 15:6)

1. Institut khimii prirodnikh soyedineniy AN SSSR.
(Lactones--Spectra) (Acetic acid)

BERGEL'SON, L.D.; VAYER, V.A.; KOVTUN, V.Yu.; SENYAVINA, L.B.; SHEMYAKIN, M.M.

Unsaturated acids and macrocyclic lactones. Part 2: Stereocpecific method for synthesizing natural unsaturated fatty acids with the aid of Wittig reaction. Zhur.ob.khim. 32 no.6:1802-1807 Je '62.

(MIRA 15:6)

(Acids, Fatty) (Wittig-~~reaction~~) (Unsaturated compounds)

POSTOVSKIY, I.Ya.; BEDNYAGINA, N.P.; SENYAVINA, L.B.; SHEYNKER, Yu.N.

Study of azide-tetrazole tautomerism with the aid of infrared spectroscopy. Izv. AN SSSR.Ser.fiz. 26 no.10:1298-1300 0 '62.
(MIRA 15:10)

1. Ural'skiy politekhnicheskiy institut im. Kirova i Institut
khimii prirodnkh soyedineniy AN SSSR.
(Azides—Spectra) (Tetrazole—Spectra) (Tautomerism)

S/062/62/000/011/005/021
B101/B144

AUTHORS: Nesmeyanov, A. N., Kochetkova, N. S., Vil'chevskaya, V. D.,
Sheynker, Yu. N., Senyavina, L. B., and Struchkova, M. I.

TITLE: o-Carboxy- and o-hydroxy benzoyl ferrocenes and their
derivatives

PERIODICAL: Akademiya nauk SSSR. - Izvestiya. Otdeleniye khimicheskikh
nauk, no. 11, 1962, 1990 - 1996

TEXT: The IR and UV spectra of the following compounds were studied:
o-carboxy benzoyl ferrocene (A); o-hydroxy benzoyl ferrocene (B) synthesized
from salicyl chloride and ferrocene in the presence of $AlCl_3$ in CH_2Cl_2

solution at 45 - 50°C; o-methoxy benzoyl ferrocene (C) obtained by
methylating B with dimethyl sulfate, yield 96%; o-acetoxy benzoyl ferrocene
(D) obtained by acetylating B with acetic anhydride, yield 95%; o-hydroxy
benzyl ferrocene (E) obtained by reducing B with zinc amalgam, yield 77%;
o-methoxy benzyl ferrocene (F) obtained by methylating E with dimethyl
sulfate, yield 94%; o-hydroxy phenyl ferrocenyl carbinol (G) obtained by
reducing B with $LiAlH_4$, yield 90%; and o-methoxy ferrocenyl carbinol (H)

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o-Carboxy- and o-hydroxy...

S/062/62/000/011/005/021
B101/B144

obtained by methylating G with dimethyl sulfate, yield 93%. Ethers of the type $C_{10}H_9Fe-CH(OR)-C_6H_4OH$ were obtained by recrystallizing G in the corresponding alcohols. For $R = CH_3$, the m.p. was 119 - 120°C, the yield 89%; for $R = C_2H_5$, m.p. 117°C, yield 94%; and for $R = i-C_3H_7$, m.p. 79-80°C, yield 89%. The spectroscopic studies showed: (1) Both the crystallized and the dissolved A showed no tautomerism by ring closure. The structure of A is therefore open: $Fc-CO-C_6H_4-COOH$ (Fc = ferrocenyl), although in an earlier study (Dokl. AN SSSR, 138, 390 (1961)) derivatives of the tautomeric form $Fc-C(OR)-C_6H_4$ were also synthesized from this compound. (2) With B there is also no hydroxy quinone tautomerism, but an intramolecular H bond

is formed. There are 4 figures and 1 table. The most

$$\begin{array}{c}
 H \\
 \vdots \\
 O \quad O \\
 \vdots \quad \vdots \\
 Fc - C - C - H_4 \\
 \parallel \quad | \\
 O \quad O
 \end{array}$$

Card 2/3

o-Carboxy- and o-hydroxy...

S/062/62/000/011/005/021
B101/B144

important English-language reference is: R. L. Schaaf, J. Organ. Chem.,
27, 107 (1962).

ASSOCIATION: Institut elementoorganicheskikh sovedineniy Akademii nauk
SSSR (Institute of Elemental Organic Compounds of the
Academy of Sciences USSR). Institut khimii prirodnykh
sovedineniy Akademii nauk SSSR (Institute of Chemistry of
Naturally Occurring Compounds of the Academy of Sciences USSR)

SUBMITTED: April 4, 1962

Card 3/3

VUL'FSON, N.S.; ZHURINA, F.G.; SENYAVINA, L.B.

Reformatski's reaction with bromomalonate ester. Part 3:
Further study of the reaction of bromomalonate ester with
benzaldehyde. Zhur. ob. khim. 34 no. 7: 2344-2347 J1 '64
(MIRA 17:8)

1. Institut khimii prirodnikh soedineniy AN SSSR i Nauchno-
issledovatel'skiy institut organicheskikh poluproduktov i
krasitel'y.

VULFSON, N.S.; PODREZOVA, T.N.; SENYAVINA, L.B.

Dieckmann reaction. Part 13: Infrared and ultraviolet spectra of methyl- and carbethoxy derivatives of 3-chromanone. Zhur. ob. khim. 34 no.8:2676-2681 Ag '64. (MIRA 17:9)

1. Institut khimii prirodnikh soyedineniy AN SSSR i Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley (NIOPiK).

VUL'FSON, N.S.; SAVENKOVA, Ye.V.; SENYAVINA, L.B.

Claisen-Schmidt reaction with heterocyclic analogs of
o-hydroxyacetophenone. Part 1: Condensation of dehydracetic
acid with benzaldehyde. Zhur. ob. khim. 34 no.8:2743-2747
Ag '64. (MIRA 17:9)

1. Institut khimii prirodnykh soyedineniy AN SSSR i Nauchno-
issledovatel'skiy institut organicheskikh poluproduktov i
krasiteley.

L 52565-65 EPF(c)/EAP(s)/EXT(a) 3-4 Tral RM

ACCESSION NR: AP5015797

UR/0062/64/000/011/1979/1984

23
22
8

AUTHOR: Senyavina, L. B.; Dyatlovitskaya, E. V.; Sheynker, Yu. N.; Bergel'son, L. D.

TITLE: Infrared spectra of acylmethylenetriphenylphosphoranes and their salts

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 11, 1964, 1979-1984

TOPIC TAGS: organic phosphorus compound, IR spectrum, IR spectroscopy

Abstract: The infrared spectra of a number of alpha-acylmethylenetriphenylphosphoranes and the corresponding phosphonium salts were studied on the assumption that increasing the polarity of the carbonyl group should produce a substantial increase in the intensity of the C=O band. Special attention was paid to the measurement of the intensities of the bands of the valence vibrations of carbonyl in these compounds. The infrared spectra of seven of the compounds were characterized for the first time. Carbonyl-containing triphenylphosphonium salts

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L 52565-65

ACCESSION NR: AP5015797

$[(C_6H_5)_3P^+CHCOR]Hal^-$ were found to possess frequencies of the valence

vibration of carbonyl close to the known values of the frequencies for saturated carbonyl-containing compounds, while in the phosphoranes $(C_6H_5)_3P=CR_1-CO-R$, the position of the absorption band of carbonyl was shifted 100-180 cm^{-1} into the low-frequency region. The intensities of the carbonyl bands in the spectra of acylmethylenetriphenylphosphoranes were substantially increased, while in the spectra of the salts they were somewhat lowered in comparison with the normal values. The data obtained agree with an ylide structure of acylmethylenetriphenylphosphoranes, in which the polarity of the C=O groups is greatly increased, and the negative charge is localized to a considerable degree on the oxygen, rather than on the ylide carbon, as in alkylidenephosphoranes. Orig. art. has 1 formula, 2 graphs, and 1 table.

ASSOCIATION: Institut khimii prirodnikh sovedineniy Akademii nauk SSSR (Institute of the Chemistry of Natural Compounds, Academy of Sciences, SSSR)

SUBMITTED: 06Feb63

ENCL: 00

SUB CODE: OG, OP

NO REF SOV: 003

OTHER: 012

JPRS

Card 2/2 *mb*

SHEYNKER, Yu.N.; SENYAVINA, L.B.

Position and the intensity of antisymmetrical stretching band
of the N_3 group in the infrared spectra of organic azides.
Izv. AN SSSR Ser. khim. no.11:2113 N '64 (MIRA 18:1)

1. Institut khimii prirodnikh soyedineniy AN SSSR.

VUL'FSON, N.S.; ZHURINA, F.G.; SENYAVINA, I.B.

Interaction of bromocyanacetic ester with aromatic aldehydes
in the Reformatskii and Witequist reactions. Dokl. AN SSSR 157
no.3:603-606 J1 '64. (MIRA 17:7)

1. Institut khimii prirodnykh soedineniy AN SSSR i Nauchno-
issledovatel'skiy institut organicheskikh poluproduktov i
krasiteley. Predstavleno akademikom M.M. Shemyakinym.

L 36797-66 ENT(m)/ZMP(j) RW/CD-2 SOURCE CODE: UR/0062/65/000/005/0895/0898

ACC NR: AP6012080

AUTHOR: Senyavina, L. B.; Sheynker, Yu. N.; Zheltova, V. N.; Dombrowskiy, A. V.;
Shevchuk, M. I.; Kabachnik, M. I.; Mastryukova, T. A.; Melent'yeva, T. A.

ORG: Institute of the Chemistry of Natural Compounds, AN SSSR (Institut khimii
prirodnykh soyedineniy AN SSSR)

TITLE: Infrared spectra of aroylmethylenetriphenylphosphoranes and their salts

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 5, 1965, 895-898

TOPIC TAGS: IR spectrum, organic salt, organic phosphorous compound, electron donor,
cyclic group

ABSTRACT: The integral intensities of the carbonyl absorption in the infrared spectra of aroylmethylenetriphenylphosphoranes (in which the carbonyl group is bonded to a phenyl ring) and their salts were measured. The data were considered from the standpoint of electron donor and electron acceptor properties of the phosphorus atom and the aromatic rings of the aroyl group, as well as the influence of substituents in the aromatic ring on the absorption intensity. The addition of an aromatic group to the carbonyl in phosphoranes led to a decrease in the frequency and intensity of the valence vibration of the carbonyl group in comparison with the corresponding aliphatic derivatives, evidently as a result of the functioning of the aromatic ring as an electron acceptor, competing with the carbonyl group for electrons from the strong electron-donor phosphorus atom. The frequency and in-

UDC: 543.422

Card 1/2

Card

SENYAVINA, L.B.; SHEYNKER, Yu.N.; ZHELTOVA, V.N.; DOMBROVSKIY, A.V.;
SHEVCHUK, M.I.

Infrared spectra of aroylmethylenetriphenylphosphoranes and
their salts. Izv. AN SSSR. Ser. khim. no.5:895-898 '65. (MIRA 18:5)

1. Institut khimii prirodnikh soedineniy AN SSSR.

SHEYNER, Yu.N.; SENYAVINA, I.B.; ZHELTOVA, V.N.

Position and intensity of the absorption band of the antisymmetric valence vibration of the group N_3 in the infrared spectra of organic azides. Dokl. AN SSSR 160 no.6:1339-1342 F '65.

(MIRA 18:2)

1. Institut khimii prirodnikh soedineniy AN SSSR. Submitted August 29, 1964.

LOKSHIN, G.P.; KHOKHLOV, A.S.; SHEYNKER, Yu.M.; SENYAVINA, L.B.

Chemical and spectroscopic study of albocourcin. Khim. prirod.
soed. no.6:395-400 '65. (MIRA 19:1)

1. Institut khimii prirodnykh soedineniy AN SSSR i Vsesoyuznyy
nauchno-issledovatel'skiy institut antibiotikov. Submitted
Feb. 5, 1964.

AUTHOR: Senyavskiy, S. 27-58-6-20/35

TITLE: The Collective Is the Main Force (Kollektiv - glavnaya sila)

PERIODICAL: Professional'no-Tekhnicheskoye Obrazovaniye, 1958, Nr 6,
p 25-27 (USSR)

ABSTRACT: The duration of education in the new type technical schools
is only from 10 to 18 months. It is important to create for
the student an atmosphere in which he is happy. The author
describes the importance of teachers and the students' col-
lective and the harmonious cooperation of these two bodies.

Card 1/1 There is 1 Soviet reference.

1. Education-USSR
2. Educational dynamics-USSR

L 32449-65 EWT(m)/EPF(c)/T Fr-L DJ/WE

ACCESSION NR: AT4049521

S/2917/64/000/282/0014/0034

AUTHOR: Meylikhov, M. Ye. (Engineer); Mitrofanov, I. M. (Candidate of technical sciences); Pavlov, S. F. (Candidate of technical sciences); Sen-Zhelen, Ye. A. (Engineer)
 TITLE: Results of field tests of the first Soviet G1-01 gas turbine locomotive

SOURCE: Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta. Trudy, no. 282, 1964. Rezul'taty issledovaniy gazoturbovoza G1-01 i lokomotivnykh gazoturbinnnykh dvigateley (Results of research on the gas turbine locomotive G1-01 and locomotive gas turbine engines), 14-34

TOPIC TAGS: gas turbine, gas turbine locomotive, distillate fuel, gas turbine compressor, locomotive field test

ABSTRACT: The gas turbine locomotive discussed in this paper was manufactured by the Kolomenskiy teplovozostroitel'nyy zavod imeni V. V. Kuybysheva (Kolomna Diesel Plant) at the end of 1959. Only one section of a two-section freight gas-turbine locomotive was made. The wheel arrangement was 3₀-3₀; working weight 139.4 tons; turbine shaft h.p. 3,500; traction engine h.p. 2,700; calculated gas turbine speed 8,500 rpm; calculated gas temperature in front of the engine 727C; ratio of limiting compression pressures 6; number of compressor stages 12; number of turbine states 4; h.p. of 1D6N auxiliary engine 220; fuel reserve in kg: distillate fuel

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L 32449-65

ACCESSION NR: AT4049521

4

9,500 and diesel fuel 1,500; calculated speed 100 km/hr. Several test runs were made with trains weighing up to 2,000 tons. On the basis of adjustment tests a new engine was designed with higher casing rigidity which resulted in lower engine vibration. Engine No. 3 was replaced by this newly designed engine No. 4. Further tests were made between the stations of Kochetovka and Rybnoye with grades up to 8%, and then between Kochetovka and Pavelets. Operation showed that the gas turbine locomotive could undergo routine inspection and repairs in regular railroad repair shops. Repairs would be needed at the plant only when there are no special devices or spare parts and assemblies. The time lost for repairs was 60% of the total time of operation. The total number of runs was 90 with freight trains weighing up to 2,870 tons. The average speed was 50-53 km/hr. without any speed limitations along the road. The distillate fuel used in the engine had the following properties: density 0.917-0.924; viscosity at 50C 1.58-1.60; solidification point -7C to +3C; flash point 65-82C; content of sulfate tars 17-18%; content of admixtures 0.03-0.12%; ash content 0.0079-0.0086%; vanadium content 0.0009-0.0027%; sulfur content 2.5-3%; calorific value 9,745-9,734 Cal/kg. Water was found in the fuel tank and was regularly drained, as the presence of water leads to the formation of harmful emulsions. The diesel fuel consumption was 2-10% (5.4% average) of the entire fuel consumption. Lubricant consumption was 0.2 g/ehp-hr, or 10-15% of that in diesel locomotives. In the winter (-20 to

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ACCESSION NR: AT4049521

0

+5C) the maximum horsepower of the gas turbine was 2,700-2,800 h.p. and 2,200-2,300 kW, while in the summer (up to +30C) the maximum h.p. was 2,500-2,600 and 1,900-2,000 kW. This is explained by limitation of engine power at temperatures above +15C. The performance curve (Fig. 1 of the Enclosure) depends on the DC drive installed on the GI-01 gas turbine locomotive. The locomotive was set at constant speed by manual adjustment of main generator excitation. As the gas turbine was tested the results became better at higher engine power. The power efficiency between Kochetovka and Rybnoye was 0.68-0.70. Increased experience of the locomotive engineer and team leads to improved operation, lower fuel consumption, etc. Thus, during the first few trips, the gas turbine was never shut off as the engineer was not sure whether he could start it again if required. Calculations and operational tests show that the weight of the freight train may be increased to 3,000-3,100 tons. Fuel consumption may be lowered by decreasing idling speed and by a sharp drop in gas turbine speed while the auxiliary diesel engine is running at idling speed. The field test data coincide with laboratory tests of the gas turbine in relation to speed and power, the same being true in relation to the compressor. Constant power of the generators may be obtained by adjusting the main generator excitation when the temperature changes from -20 to +25C. Distillate fuel has been approved as a standard petroleum fuel for gas turbine locomotive engines (GOST 10443-63). Several defects were eliminated during the field

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L 32449-65

ACCESSION NR: AT4049521

tests, such as suction of exhaust gases into the compressor, the input air temperature being 5-10C higher than the outer air temperature, as well as compressor surge. Opening of the compressor after 46,000 km showed that the flow parts of the compressor were in good condition. Even before the governor was installed the engine could be started with ease. The main deficiency in the combustion chamber was smokey exhaust, with both distillate and diesel fuels. Fig. 2 of the Enclosure shows the revised design of the turbine vane fastening. Slide bearings resulted in lower vibration and they are to be installed on all new engines. The main fuel pump and circulation pump failed several times due to poor packings. The horsepower of the auxiliary diesel engine should be increased from the initial 150 h.p. to 300-400 h.p., instead of the reinstalled 220 auxiliary diesel engine. Finally, it is noted that the gas turbine locomotive engine ran satisfactorily. However, tests with only one locomotive are insufficient and several should be built with automatic governors and controls on the gas turbine for testing the entire system. Orig. art. has: 14 figures and 2 tables.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta, Moscow (All-union railroad transport scientific research institute)

SUBMITTED: 00

ENCL: 02

SUB CODE: PR

NO REF SOV: 002

OTHER: 000

Card 4/6

E 32149-65

ACCESSION NR: AT4049521

ENCLOSURE: 01

0

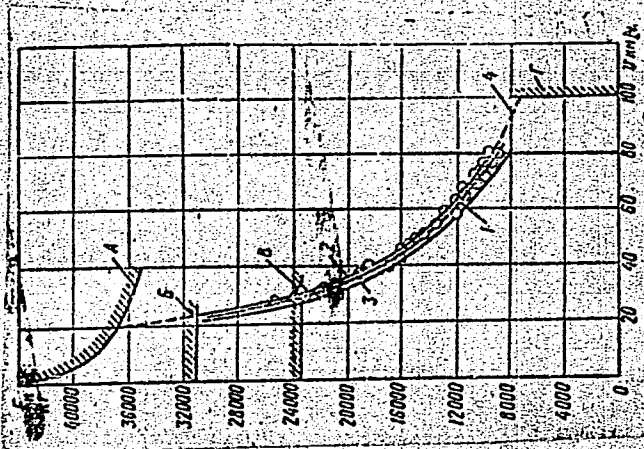


Fig. 1. Performance curve of GI-01 gas turbine locomotive at 8,500 rpm 1-spring-fall season; 2-winter season; 3-summer season; 4-"Elektro-tyazhmash" design; A-limitation for friction; B-the same for starting current; C-for long-time current; D-for calculated speed

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L 32449-65

ACCESSION NR: AT4049521

ENCLOSURE: 02

0

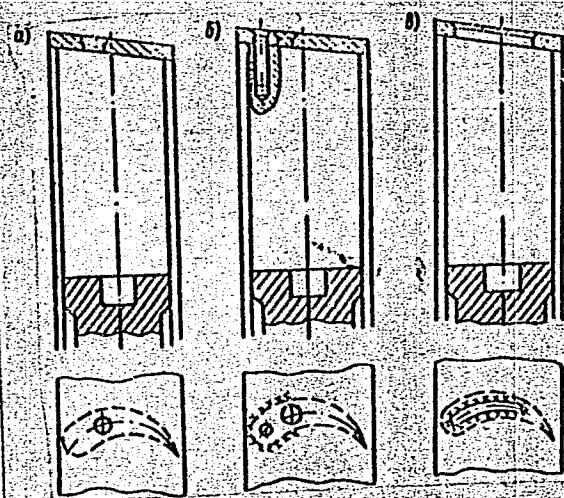


Fig. 2. Fastening of turbine vanes
a-initial design;
b-improved design;
c-design worked out for future
gas turbine engines

Card 6/6

SENTEI, K.

"Latest Trends in the Development of Radio Anodes and Heating Dry Batteries." p. 137 (RADIOTECHNIKA. Vol. 4, No. 7/8, July/Aug. 1954; Budapest, Hungary.)

So: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 4, April 1955, Uncl..

SENYEI, K.

"From the Antenna to Medium Frequency." (Conclusion). p. 170
(RADIOTECHNIKA, Vol. 4, No. 7/8, July/Aug. 1954; Budapest, Hungary.)

So: Monthly List of East European Accessions, (EEAL), L, Vol. 4,
No. 4, April 1955, Uncl..

SENYEI, K.

Modern alkaline radio batteries, (To be contd.) p. 106, RADIOTECHNIKA,
(Magyar Onkentes Honvedelmi Szovetseg) Budapest, Vol. 5, No. 5,
May 1955

SOURCE: East European Accessions List (EEAL) Library of Congress,
Vol. 4, No. 12, December 1955

SENYEI, K.

The Orion 420 U. p. 107, RADIOTECHNIKA, (Magyar Honvédelmi Szovetseg) Budapest, Vol. 5, No. 5, May 1955

SOURCE: East European Accessions List (EEAL) Library of Congress,
Vol. 4, No. 12, December 1955

CHRETI, K.

Modern alkaline radio batteries. (Conclusion). p. 188. RADIOTECHNIKA.
Budapest. Vol. 5, No. 7/8, July/Aug. 1955

SOURCE: East European Accessions List (EEAL) Vol. 5, No. 6 June 1956

SENYI, F.

The Union of Textile Workers for giving a new impulse to the innovator movement. p. 3.

(Ujitok Lapja, Vol. 9, no. 10, June 1957. Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 9, Sept. 1957. uUncl.

SENYI, Imre

Trends in the development of television manufacture and its problems.
(EEAI 10:9)

Musz elet 16 no.2:3 Ka '61.

(Hungary--Television)

SENYI, Imre

Technical development of our chemical industry. Musz elet 16 no.17:6
Ag '61.

(Hungary—Chemical industries)

SENYI, Imre

Television accross the ocean. Musz elet 17 no.3:6 F '62.

SENYI, Imre

Color television in Hungary and abroad. Musz elet 18
no.7:5 28 Mr '63.

DYBAN, A.P.; TURKEVICH, N.M.; SENK, A.F.

Relation of the chemical structure of azolidine derivatives and
certain related substances to their antithyroid activity. Farm.
i toks. 23 no. 5:427-432 S-O '60. (MIRA 13:12)

1. Kafedra farmatsevticheskoy khimii (zav. - prof. N.M. Turkevich)
i kafedra gistologii (zav. - dotsent A.P. Dyban) L'vovskogo meditsin-
skogo instituta.

(PYRROLE) (THYROID GLAND)

BAK, Stefan; SENYK, Irena

Report results following lumbar sympathectomy in chronic diseases of the lower extremity. Polski przegl.chir. 27 no.5:425-440 May '55.

1. Z II Kliniki Chirurgicznej A. M w Krakowie. Kierownik: prof. dr. K.Michejda. Krakow, Kopernika 40, I. Klin.chir. A M
(VASCULAR DISEASES, PERIPHERAL, surgery, sympathectomy, lumbar)
(SYMPATHECTOMY, lumbar, in peripheral vasc.dis.)

BAK, Stefan; DOLEZAL, Marian; SENYK, Irena; WALKER, Ryssard; ZAWADA,
Maria

Use of antibiotics and chemotherapeutics in mechanical
intestinal obstruction. Polski przegl. chir. 28 no.1:
27-48 Jan 56.

1. Z II Kliniki Chirurgicznej A. M. w Krakowie Kierownik: prof.
Dr. K. Michejda i z K Zakładu Mikrobiologii Lekarskiej a
A. M. w Krakowie. Kierownik: prof. dr. Z. Przybylkiewicz
Krakow, Kopernika 40, 1 Klin. Chir.

(INTESTINAL OBSTRUCTION, exper.
eff. of postop. chemother. (Pol))
(CHEMOTHERAPY, in various dis.
exper. intestinal obstruct. (Pol))

SENYK, Irena (Krakow, ul. Kopernika 21.)

Clinical evaluation of succinylcholine diiodide produced in Poland.
Polski przegl. chir. 30 no.4:389-397 Apr 58.

1. Z II Kliniki Chirurgicznej A. M. w Krakowie Kierownik: prof. dr
K. Michejda.

(SUCCINYLOCHOLINE, therapeutic use
evaluation (Pol))

TAUBENFLIGEL, Wiktor, WAJDA, Zdzislaw, SINYK, Jerzy.

Experimental research on the suitability of free flaps from the peritoneum to supplement defects in the walls of the gastrointestinal system. Polski przegl.chir. 30 no.2:149-151 Mar '58

1. Z III Kliniki Chirurgicznej A.M.C. Kierownik: prof. dr Z. Kietruakis
Gdansk, ul. Sluzby 9, III Klinika Chirurgiczna A.M.

(GASTROINTESTINAL SYSTEM, surg.

free peritoneal flaps to supplement defects in walls
of gastrointestinal system in animals (Pol))

(PERITONEUM, surg.

same (Pol))

SWICA, Stanislaw; SENYK, Jerzy; WRZOŁKOWA, Teresa

Primary encapsulated angioma of the striated muscles in the abdominal wall. Polski wrzegl. chir. 30 no.10:1051-1053 Oct 58.

1. Z III Kliniki Chirurgicznej A.M.G. Kierownik: prof. dr Z. Kieturakis
oraz z Zakładu Anatomii Patologicznej A.M.G. Kierownik: prof. dr W.
Czarnocki. Adres autora: Ddansk, ul. Sluza 9/10.

(ABDOMINAL WALL, neoplasms

primary encapsulated angioma of striated musc. (Pol))

(ANGIOMA, case reports

abdom. wall, primary encapsulated angioma of striated
musc. (Pol))

WRZOLKOWA, Teresa; SENYK, Jerzy

Contribution to the problem of Whipple's disease. Polski tygod.
lek. 15 no.16:598-602 18 Ap '60.

1. Z Zakladu Anatomii Patologicznej A.M. w Gdansku; kierownik:
prof. dr. med. Wilhelm Czarnocki i z III Kliniki Chirurgicznej
A.M. w Gdansku; kierownik: prof. dr. med. Zdzislaw Kieturakis.
(LIPODYSTROPHY case reports)

SENK, Jerzy; DILAJ, Jerzy

Direct lymphography and lymphadenography of the lower extremity.
Polski przegl. chir. 33 no.3:253-256 '61.

1. Z III Kliniki Chirurgicznej AM w Gdansk Kierownik: prof. dr
Z. Kieturakis.

(LYMPHATIC SYSTEM radiog) (LEG radiog)

SENYK, Jerzy; KOSSAK, Jerzy

Use of crossed flaps in traumatic surgery. Pol. przegl. chir.
35 no.10/11:1064-1066 '63.

1. Z III Kliniki Chirurgicznej AM w Gdansk Kierownik: prof.
dr Z. Kieturakis.

(SKIN TRANSPLANTATION) (SURGERY, PLASTIC)
(WOUNDS AND INJURIES)

ACC NR: AP6034401 SOURCE CODE: UR/0021/66/000/010/1258/1262 .

AUTHOR: Senyk, P. M. -- Senik, P. M.

ORG: Institute of Mathematics, AN URSR (Institut matematiki AN URSR)

TITLE: Construction of a nearly exact asymptotic solution for a quasi-linear system

SOURCE: AN UkrRSR. Dopovidi, no. 10, 1966, 1258-1262

TOPIC TAGS: asymptotic solution, first approximation, dynamic programming

ABSTRACT: The author uses the dynamic programming method to construct a nearly exact asymptotic solution in the first approximation for a quasi-linear system. The problem is solved in a discrete formulation. The article was presented by Yu. A. Mitropolskiy, Member of the Academy of Sciences, URSR. Orig. art. has: 18 formulas.

SUB CODE: 12/SUBM DATE: 02Oct66/ORIG REF: 001/OTH REF: 001/

Card 1/1

SOV/124-58-7-8053

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 7, p 108 (USSR)

AUTHORS: Melikidze, I.G., Senyuk, S.M., Gogichev, I.I.

TITLE: A Study of the Mechanical Properties of the Rock in Rare-metal Deposits (Izucheniye mekhanicheskikh svoystv gornykh porod mestorozhdeniy redkikh metallov)

PERIODICAL: Tr. In-ta metalli i gorn. dela. AN GruzSSR, 1957, Vol 8, pp 285-301

ABSTRACT: Bibliographic entry

1. Rock--Mechanical properties 2. Rare earth elements

Card 1/1

MELIKIDZE, I.G.; SENYUK, S.M.

Determining rock hardness by means of a pendulum hardness
tester. Trudy Inst.met. AN Gruz.SSR 9:271-289 '58.
(MIRA 12:3)
(Rocks--Testing) (Hardness--Testing)

MELIKIDZE, I.G.; SENYUK, S.M.; GOGICHEV, I.I.

Study of the relation between rock hardness and the size of
samples. Trudy Inst.gor.dela AN Gruz.SSR 2:87-101 '60.
(MIRA 14:10)

(Rocks--Testing)

SENYUK, T. V.

Cand Biol Sci - (diss) "Effect of the central nervous system on chronaxie of the neuro-muscular apparatus." Minsk, 1961. 17 pp; (Academy of Sciences Belorussian SSR, Inst of Biology); 200 copies; price not given; (KL, 7-61 sup, 228)

SENYUK, T.V.

Use of electrotonic block in studying subordinative effects on the
chronaxy of the neuromuscular apparatus. Vop. fiziol. chel. i zhiv.
no.1:123-138 '60. (MIRA 14:10)

1. Electrofiziologicheskaya laboratoriya Belorusskogo nauchno-
issledovatel'skogo instituta nevrologii, neurokhirurgii i fizio-
terapii.

(ELECTRICITY--PHYSIOLOGICAL EFFECT) (CHRONAXIA)

1c

L 37019-65 EWT(m)/EPF(c)/EPR/EMP(j) - Pc-4/Pr-4/PA-4 - Wt/RM
 S/0081/64/000/020/S082/S082

ACCESSION NR: AR5003012

SOURCE: Ref. zh. Khimiya, Abs. 20S511

AUTHOR: Mikhant'yev, B. I.; Kretinin, S. A.; Gostev, M. M.; Shatalov, V. P.;
 Markina, E. I.; Senyuk, Ye. P.

TITLE: Butadiene-styrene rubbers filled with carbon black and oil and produced by
 high-temperature polymerization

CITED SOURCE: Tr. Labor. khimii vysokomolekul. soyedineniy. Voronezhsk. un-t,
 vyp. 2, 1963, 103-108

TOPIC TAGS: synthetic rubber, butadiene rubber, styrene rubber, carbon black fil-
 ler, gas black filler, channel black filler, oil filled rubber, high temperature
 polymerization, rubber mechanical property, rubber emulsifier, synthetic fatty
 acid, colophony, latex coagulation

TRANSLATION: The authors studied the properties of butadiene-styrene rubbers of
 the SKS-30 type, produced by high-temperature polymerization with the addition of
 17.6-50.0 parts by weight of carbon black and 50.0 parts by weight of gas black, channel
 black or HAF black to latex stocks. The following combinations were tested as

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B

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ACCESSION NR: AR5003012

emulsifying agents: Nekal and the Na soaps of synthetic fatty acids; Nekal and the K soaps of synthetic fatty acids; the K soap of hydrogenated colophony and the K soaps of synthetic fatty acids. The 20% carbon black dispersions were prepared by grinding in a ball mill for 24 hrs. in the presence of 4-6 parts by weight leukanol and 0.6 parts by weight NaOH (in relation to the carbon black). The oil emulsion was of commercial origin. During the coagulation of mixtures from Nekal latex, the best results were produced by CaCl_2 and CH_3COOH ; in the case of latex produced with the soaps of synthetic fatty acids, the best results were produced by a mixture of CaCl_2 , NaCl and CH_3COOH ; in the case of colophony latex, NaCl and H_2SO_4 gave the best results. During deformation of the initial rubber with 4500 g, raw mixtures of rubber filled with carbon black and oil (SMK rubber) had a somewhat greater plasticity and less reducibility than when carbon black was added to oil-filled rubber on the rollers. The strength of the SMK vulcanates was somewhat lower, however. The method of introducing the carbon black had no significant effect on the properties of rubber mixtures and vulcanates in soft rubber. The properties of rubber do depend, however, on the method of coagulation. The instantaneous (single-stage) coagulation of SMK rubber resulted in somewhat more rigid mixtures with increased strength and decreased relative elongation. A.

Shvarts.

SUB CODE: MT
Card 2/2

ENCL: 00

SEIYUKOV, M.V.

Subcutaneous emphysema of the neck following an adenotomy.
Zhur. ush., nos. i gorl. bol. 23 no.5:79 S-0'63 (MIRA 17:3)

1. Iz otorinolaringologicheskogo otdeleniya Bryanskoy gorod-
skoy bol'nitsy No.2.

SOV/51-4-6-1/24

AUTHORS: Demkov, Yu. N., Neygauz, M.G. and Senyukov, R.V.

TITLE: Ground-State Energy of Helium (Energia osnovnogo sostoyaniya geliya)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol. IV, Nr 6, pp 709-714 (USSR)

ABSTRACT: The problem of finding energy levels for a helium atom in the non-relativistic approximation reduces to finding of stationary values of a certain functional J . The functional J has a lower bound. Its smallest extremal value λ is the value required and it determines the ground-state energy. The problem was solved by the Ritz method which gives an approximation for the extremal eigenvalue. This eigenvalue is always on the energy spectrum side. Applying this method to the J functional, an approximate energy value L is found which is the upper bound for the true eigenvalue λ . The system of functions used in the Ritz method was the same as in Refs 1, 2. The lower bound for λ was found using the Maehly method (Ref 5). The calculations were made using the BESM computer.

Card 1/2

Ground State Energy of Helium

SOV/51-4-6-1/24

Approximate values of the ground-state energy above and below the true eigenvalue were found. They are given as:
- 2.9040855 < λ < -2.9037202. There are 1 appendix and 9 references, 5 of which are American, 1 English, 1 Swiss, 1 Soviet and 1 mixed (translation and German).

ASSOCIATION: Leningradskiy Gosudarstvennyy Universitet; Vychislitel'nyy Tsentr AN SSSR (Leningrad State University; Computing Centre, Academy of Sciences of the U.S.S.R.)

SUBMITTED: July 10, 1957

Card 2/2

60

S/044/61/000/007/048/055
C111/C222

16.6800

AUTHORS: Demkov, Yu.N., and Senyukov, R.V.

TITLE: A program for the solution of a system of linear equations according to the method of elimination with the choice of a principal element

PERIODICAL: Referativnyy zhurnal Matematika, no. 7, 1961, 47, abstract 7 V 307, ("Sb. standartn. i tipovykh programm dlya BESM" (BESM)., M., An SSSR, 1960, 17-20)

TEXT: This is a complete program in the instructions of the BESM, a short description of the block diagram and an instruction for the use of the program for the solution of the system $B = AX$ with a maximal order equal to 30.

[Abstracter's note : Complete translation.]

✓B

Card 1/1

SEN YUKOV R. V.
p. 2.

PHASE I BOOK EXPLOITATION SOV/4157

Akademiya nauk SSSR. Vychislitel'nyy tsentr

Sbornik standartnykh i tipovykh programm dlya BESM (Collection of Standard and Typical Programs for the BESM [High-Speed Electronic Computer]). Moscow, 1960. 73 p. Errata slip inserted. 5,000 copies printed.

Resp. Ed.: V.M. Kurochkin, Candidate of Physics and Mathematics;
Ed. of Publishing House: M.V. Yakovkin; Tech. Ed.: I.F. Kuz'min.

PURPOSE: This book is intended for digital computer programmers.

COVERAGE: The book is a collection of 10 articles giving 10 programs for the solution of various mathematical and numerical problems using the BESM (High-Speed Electronic Computer). No personalities are mentioned. There are no references.

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AVAILABLE: Library of Congress

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AC/rn/jb
8-22-60

SENYUKOV, R.V.; SHAPOSHNIKOV, N.N.

Program of the transformation of matrices for the "Ural-1"
electronic computer. Trudy MIIT no.174:61-73 #163.

(MIR 18:1)

SEMYUKOV, Vasilii Mikhaïlovich.

Dr. Geological Sci. Leader, an expedition, State Geological Oil Prospecting Trust,
-1946-. "The Tolba River and the Petroleum Potential of the Northern Slope of the
Aldan Massif," 1938.

SMOS

The yield of petroleum from the Lower-Cambrian deposits of the Aldan massif slope. V. M. Senyukov. *Russkaya Nedra* 1930, No. 9, 3-9; *Khim. Referat.* 1940, No. 3, 27-8.—Results of the exploration for petroleum on the northern slopes of the Aldan massif, and data of chem. investigations of the Lower-Cambrian bitumens of this region are given. These bitumens contain C₈-C₁₄, H₁₁-H₁₂, S 2-7, asphaltenes 61-75, and silica gel tars 32-43%. In their properties the bitumens resemble those of petroleum origin. The content of org. C in the bituminous shales of the Lower-Cambrian age of the Sinyaya River region varies between 0.00 and 4.52%. W. R. Henn

22

CH

Siberian petroleum. V. M. Senyukov and A. A. Shmelev. *Soviet Geol.* 9, No. 8, 83-4 (1939). Petroleum content of the Upper Paleozoic deposits of the Eastern European Platform. M. M. Tolstikhina. *Ibid.* 85-6. Brown coals of the Krivorog District. M. I. Naida. *Ibid.* 80-90. Crystalline shales of the Main Caucasus Divide and their origin. S. P. Solov'ev. *Ibid.* 90-1.

F. H. Rathmann

ASB-3LA METALLURGICAL LITERATURE CLASSIFICATION

12

Ca

Petroleum problems of the Leningrad District and ways toward their practical solution. V. M. Semyukov. *Soviet Geol.* 1941, No. 1, 29-38. A bitumen from Putilov contains 80.3% C, 0.1 H, 1.7 N, 0.8 S, 2.1 O, 8.3 mineral matter. Extn. with benzene dissolved 3.0% oil, 1.1 pitch, 2.7 asphaltene and 12.0% other products. CHCl₃ dissolved a further 7.5%; 60.0% was insol. Structural forms of the Leningrad District and the prospects for petroleum. M. N. Tetyshev. *Ibid.* 30-42. Structure of the Timano-Ural petroleum district. N. N. Tikhonovich. *Ibid.* 61. Petroleum is found in the Carboniferous and the Permian. The genesis of the Timano-Pechoran petroleum is discussed. Stratigraphy and petroleum content of the Malkop shales of Central and Eastern Georgia (Caucasus). M. I. Varentsov. *Ibid.* 61-74. F. H. Rathmann

ASTM 554 METALLURGICAL LITERATURE CLASSIFICATION

12

SENYUKOV, V.M.

60/49T47

USSR/Geology

Petroleum Prospecting

Oil

Sep 48

"Review of V. M. Senyukov's 'Processes of Oil
Formation in Connection With the Movement of the
Crust'" 2 pp

"Neft Khoz' No 9

Unfavorably reviews subject article, published by
the Office of Tech Econ Information of TsINT-Neft',
1947. Calls every paragraph of article con-
tradictory and incorrect in the sense of usual
geological upheavals.

60/49T47

SENYUKOV, V.M.; BAKIROV, A.A.

Tasks of petroleum geology in solving problems of oil- and
gas-bearing possibilities of the Russian Platform. Trudy VNIGNI
no.1:5-31 '49. (MIRA 10:4)
(Russian Platform--Petroleum geology)

SENYUKOV, V.M.; TIKHONOVICH, N.M.

Work of the general expedition in the Ul'yanovsk-Saratov depression and the southern part of the Oka-TSna upland. Trudy VNIGNI
no.1:31-82 '49. (MLRA 10:4)
(Volga Valley--Geology, Stratigraphic)

15-57-1-842
Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 1,
p 132 (USSR)

AUTHOR: Senyukov, V. M.

TITLE: The Geologic Role of Bacteria (Geologicheskaya
rol' bakteriy)

PERIODICAL: V sb: Metody uvelicheniya nefteotdachi plastov,
Moscow, Gostoptekhizdat, 1955, pp 195-197.

ABSTRACT: The author maintains that it is fully possible that
a clay organic mass may be destroyed by geobiogenic
means, making it possible to improve the reservoir
properties of rocks as oil-bearing horizons.

Card 1/1

V. P. K.

SENYUKOV, V.M.

For progressive development of the geology of petroleum and gas.
Sov.geol. 1 no.9:149-163 S '58. (MIRA 12:2)
(Petroleum geology) (Gas, Natural--Geology)

ARKAD'YEVA, Z.A.,;SEN'YUKOV, V.M.

Effect of antibiotics on sulfate-reducing bacteria. Mikrobiologiya
32 no. 1:131-135 '63. (MIRA 17:3)

1. Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo
universiteta imeni Lomonosova.

L 04471-67 EVI(a)/FWP(1) P(c) BB/GG
 ACC NR: AT6017643 (A) SOURCE CODE: UR/2982/65/000/058/0089/0091
 AUTHOR: Senyukov, R. V. 10
 ORG: None* 160 B+1
 TITLE: Possible methods for programmed storage expansion on the "Minsk-1" computer
 SOURCE: *Moscow. Institut neftekhimicheskoy i gazovoy promyshlennosti. Trudy, no. 58, 1965. Elektronika i vychislitel'naya tekhnika v neftyanoy, gazovoy i khimicheskoy promyshlennosti (Electronics and computer engineering in the petroleum, gas and chemical industry), 89-91
 TOPIC TAGS: computer programming, computer memory, computer/ Minsk-1 computer
 ABSTRACT: A method is proposed for expanding the storage capacity of the "Minsk-1" computer in which the first 23 places in the cell are reserved for the mantissa, the 24th gives the sign of the characteristic, and the remaining 6 places are used for the characteristic itself. Thus the relative error in the mantissa is 2^{-23} which corresponds to approximately $1.19 \cdot 10^{-7}$ in the decimal system. The proposed method nearly doubles the storage capacity by the introduction of subprograms for number formation in one cell and for splitting a number into characteristic and mantissa, transferring them to two separate (adjacent) cells. Subprograms are given for number formation and analysis, as well as a program for grouped operations. Orig. art. has: 1 figure.
 SUB CODE: 09/ SUBM DATE: none/ ORIG REF: 000/ OTH REF: 000
 Card 1/1 20/2

GOVOROV, N.P.; SENYUSHKIN, A.F.; ZHULENKO, V.N.

Effect of pharmacologic media on secretory-motor function of the intestines. Fiziol. zh. SSSR 37 no.6:736-738 Nov-Dec 51. (CJML 21:4)

1. Department of Pharmacology, Omsk Veterinary Institute.

SENYUSHKIN, A.F., Cand of Vet. Sci.

Omsk Vet. Inst.

"An experiment of treating gastro-intestinal disease of cl^hyes with
sulfenilamides."

SO: Veterinariia 29(1), 1952, p. 33

SENYUSHKIN, A.F., kandidat veterinarnykh nauk.

Complications in subcutaneous and intramuscular infection of
sulfanthrol. Veterinariia 30 no.5:29 My '53. (MLRA 6:5)

1. Litovskaya veterinarnaya akademiya.

USSR/Medicine - Physiology

SENYUSHKIN, A. F.

FD 257

Card 1/1

Author : Senyushkin, A. F.

Title : Time recorder

Periodical : Fiziol.zhur. 2, 238, Mar/Apr 1954

Abstract : A time recorder has been developed which is simple enough to be improvised at any laboratory. The following parts are needed: transformer (to step-down electric current to 4-12 volts), electromagnetic recorder, and second counter. A diagram of this time recorder is presented. This device was developed because other time recorders proved unsuitable for examination of slowly contracting organs like the intestines or the uterus. This time recorder has been used in all laboratories of the Lithuanian Veterinary Academy, Omsk Veterinary Institute, and other laboratories.

Institution : Chair of Pharmacology, Lithuanian Veterinary Academy

Submitted : June 19, 1953

USSR/Medicine - Physiology

FD-2466

Card 1/1 Pub 33-17-24

Author : Govorov, N. P.; Senyushkin, A. F.; Zhulenko, V. N.

Title : On the question of intestinal secretion in dogs

Periodical : Fiziol. zhur. 2, 273-278, Mar-Apr 1955

Abstract : The juice secretion of the isolated intestinal loop of dogs is increased after feeding (250 gm bread and 100-200 gm meat broth).
Tables; graphs. Eighteen references, all USSR (8 since 1940).

Institution: Chair of Pharmacology of the Omsk Veterinary Institute

Submitted : October 19, 1953

SENYUSHKIN, A. F. (Associate Professor, Chuvak Agricultural Institute)

"About the early diagnosis of gastro-intestinal diseases in calves".

Veterinariya, Vol. 38, No. 2, 1961, p. 61.

SEMYUSHKIN, A.F., starshiy nauchnyy sotrudnik; SHEVALOV, Yu.N., mladshiy
nauchnyy sotrudnik

Studying the toxicity of potatoes treated with the preparation
"TB." Veterinariia 42 no.11:58-60 N '65.

(MIRA 19:1)

1. Kazanskiy veterinarnyy institut.